

**Claims to the Amendments:**

Please amend the claims as follows:

1-16. (Canceled).

17. (Currently Amended) A method for isolating and purifying nucleic acids and/or oligonucleotides from a biological sample, said method comprising:

- (a) disrupting the biological sample;
- (b) optionally removing protein and insoluble components from said disrupted sample;
- (c) adding an aqueous solution of potassium acetate to said sample and subsequently separating non-soluble components from the aqueous solution;
- (d) mixing said aqueous solution of potassium acetate with an alcoholic solution containing a detergent;
- (e) incubating said mixed solution;
- (f) obtaining the supernatant of said mixed solution;
- (g) contacting and incubating said supernatant with a silicon dioxide support material to produce a silicon dioxide bound fraction and a soluble fraction; and
- (h) isolating purified nucleic acids and/or oligonucleotides from said ~~soluble~~ silicon dioxide bound fraction.

18. (Previously Presented) The method as claimed in claim 17, wherein said alcoholic solution comprises isopropanol and an ionic detergent.
19. (Previously Presented) The method as claimed in claim 17, wherein said alcoholic solution comprises at least one ionic detergent at a concentration of 0.5 % to 10% (w/v) in 100 % strength alcohol.
20. (Previously Presented) The method as claimed in claim 17, wherein said aqueous solution of potassium acetate of step (c) comprises 1 M to 6 M potassium acetate.
21. (Previously Presented) The method as claimed in claim 20, wherein said aqueous solution of potassium acetate of step (c) comprises 2 M to 4 M potassium acetate.
22. (Previously Presented) The method as claimed in claim 17, wherein said silicon dioxide support material is a suspension of silicon dioxide or silica gel.
23. (Previously Presented) The method as claimed in claim 17, wherein said silicon dioxide support material is washed at least once with acetone after step (g) and prior to step (h).
24. (Previously Presented) The method as claimed in claim 17, wherein said purified nucleic acids and/or oligonucleotides of step (h) contain less than 100 U/ $\mu$ g endotoxin.

25. (Previously Presented) The method as claimed in claim 24, wherein said purified nucleic acids and/or oligonucleotides of step (h) contain less than 10 U/ $\mu$ g plasmid DNA endotoxin.

26. (Currently Amended) A method of transfecting eukaryotic or prokaryotic cells with nucleic acids or oligonucleotides, said method comprising:

- (a) isolating and purifying nucleic acids and/or oligonucleotides from a biological sample by the steps of:
  - (1) disrupting the biological sample;
  - (2) optionally removing protein and insoluble components from said disrupted sample;
  - (3) adding an aqueous solution of potassium acetate to said sample and subsequently separating non-soluble components from the aqueous solution;
  - (4) mixing said aqueous solution of potassium acetate with an alcoholic solution containing a detergent;
  - (5) incubating said mixed solution;
  - (6) obtaining the supernatant of said mixed solution;
  - (7) contacting and incubating said supernatant with a silicon dioxide support material to produce a silicon dioxide bound fraction and a soluble fraction; and
  - (8) isolating purified nucleic acids and/or oligonucleotides from said ~~soluble~~ silicon dioxide bound fraction, and
- (b) transfecting said cells with said purified nucleic acids and/or oligonucleotides.

27. (Currently Amended) A method of producing a purified nucleic acid and/or oligonucleotide composition suitable for use in the treatment of genetic disorders, said method comprising isolating and purifying nucleic acids and/or oligonucleotides from a biological sample by the steps of:
- (a) disrupting the biological sample;
  - (b) optionally removing protein and insoluble components from said disrupted sample;
  - (c) adding an aqueous solution of potassium acetate to said sample and subsequently separating non-soluble components from the aqueous solution;
  - (d) mixing said aqueous solution of potassium acetate with an alcoholic solution containing a detergent;
  - (e) incubating said mixed solution;
  - (f) obtaining the supernatant of said mixed solution;
  - (g) contacting and incubating said supernatant with a silicon dioxide support material to produce a silicon dioxide bound fraction and a soluble fraction; and
  - (h) isolating purified nucleic acids and/or oligonucleotides from said ~~soluble~~ silicon dioxide bound fraction.
28. (Currently Amended) A kit comprising:
- (a) at least one solution suitable for the disruption of a biological sample;
  - (b) an aqueous potassium acetate solution;
  - (c) an alcohol solution ~~optionally also comprising a detergent~~ containing 0.5% to 10% (w/v) SDS in 100% strength isopropanol; and

(d) a silicon dioxide support material.

29. (Previously Presented) ~~A The kit as claimed in claim 28,~~  
comprising:

- (a) a solution suitable for alkaline lysis and disruption  
of biological sample material;
- (b) ~~a~~ an aqueous salt solution containing 1 M to 6 M  
potassium acetate;
- (c) an alcohol solution containing 0.5 % to 10% (w/v) SDS  
in 100 % strength isopropanol; and
- (d) a silicon dioxide support material.

30. (Previously Presented) The kit as claimed in claim 28,  
wherein said silicon dioxide support material is a suspension of  
silicon dioxide or silica gel.